

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1       Claim 1. (Original) An apparatus for separating a digital broadcasting signal from data  
2 transmitted using an Internet network, comprising:

3              a transmission media for transmitting signals transmitted from a server providing a digital  
4 broadcasting service and an Internet provider server to a subscriber;

5              a set-top box for separating data received through the transmission media into digital  
6 broadcasting data and Internet data and outputting both data to corresponding units;

7              a television set for receiving the digital broadcasting data outputted from said set-top box  
8 separately and processing the data; and

9              a computer for receiving the Internet data outputted from said set-top box separately and  
10 processing the data,

11              with said set-top box comparing an Internet protocol address of a received Internet protocol  
12 packet with an broadcasting Internet protocol address assigned previously by a user, and processing  
13 the Internet protocol packet in a Moving Picture Experts Group-N transport stream processing unit  
14 when the Internet protocol packet is determined as the broadcasting Internet protocol address, and  
15 outputting the Internet protocol packet to said computer directly when the Internet protocol packet  
16 is determined not to be the broadcasting Internet protocol address assigned previously.

1           Claim 2. (Original) The apparatus according to claim 1, wherein said set-top box comprises:  
2           a reception buffer for receiving the Internet protocol packet;  
3           an Internet protocol header extractor for extracting an Internet protocol header from the  
4           Internet protocol packet outputted from said reception buffer;  
5           a comparator for comparing the address of the Internet protocol header extracted from said  
6           Internet protocol header extractor with the Internet protocol address assigned previously by the user;  
7           a register for storing the broadcasting Internet protocol address value set by the user;  
8           an Internet protocol packet path processing unit for selecting an Internet protocol packet path  
9           according to a result value of the comparison outputted from said comparator;  
10           a transmission buffer for transmitting the Internet protocol packet in order to return the  
11           Internet protocol packet from said Internet protocol packet path processing unit to the computer,  
12           when the result value of the comparison is determined to be the Internet protocol address  
13           corresponding to general Internet data; and  
14           said Moving Picture Experts Group-N transport stream processing unit for processing the  
15           Internet protocol packet outputted from the Internet protocol packet path processing unit, when the  
16           result value of the comparison of the comparator is determined to be an Internet protocol address  
17           corresponding to a digital broadcasting signal.

1           Claim 3. (Original) The apparatus according to claim 2, wherein said comparator of said  
2           set-top box makes a use of an exclusive OR gate.

1       Claim 4. (Original) The apparatus according to claim 2, wherein said set-top box further  
2       includes a user datagram protocol filtering process unit for performing a port number filtering in  
3       order to identify whether data is normally received without any data loss.

1       Claim 5. (Original) The apparatus according to claim 4, wherein said user datagram protocol  
2       filtering process unit comprises a user datagram protocol processing unit for separating a user  
3       datagram protocol header and data part;

4               an exclusive OR unit for comparing the user datagram protocol header with the filtered user  
5       datagram protocol header; and

6               a final processing unit for determining whether to discard the data or to output the data to a  
7       Moving Picture Experts Group-N transport stream processing unit according to an output value of  
8       said exclusive OR unit.

Claims 6-7. (Cancelled)

1       Claim 8. (Original) A method for separating a digital broadcasting signal from data  
2       transmitted using an Internet network, comprising the steps of:  
3               receiving an Internet Protocol packet by a buffer;  
4               copying an Internet protocol header from the received Internet protocol packet and  
5       extracting the Internet protocol header;

1               comparing an Internet protocol address of the extracted Internet protocol header with a  
2       broadcasting Internet protocol address assigned previously by a user;  
3               outputting the Internet protocol packet to a Moving Picture Experts Group-N transport stream  
4       processing unit, when the extracted Internet protocol header is identical with the broadcasting  
5       Internet protocol address; and  
6               outputting the Internet protocol packet to a computer, when the extracted Internet protocol  
7       header is not identical with a broadcasting Internet protocol address.

1               Claim 9. (Original) The method according to claim 8, further comprising the step of  
2       establishing at least one broadcasting Internet protocol address to be watched by the user before said  
3       step of receiving the Internet Protocol packet by the buffer is performed.

1               Claim 10. (Original) The method according to claim 8, wherein said step of outputting the  
2       Internet protocol packet to said computer further comprises the step of outputting the Internet  
3       protocol packet to the computer through a transmission buffer, when the Internet protocol address  
4       of the extracted Internet protocol header is not identical with the broadcasting Internet protocol  
5       address.

1               Claim 11. (Original) The method according to claim 8, wherein said step of outputting said  
2       Internet protocol packet to a Moving Picture Experts Group-N transport stream processing unit  
3       further comprises the step of filtering a user datagram protocol.

1           Claim 12. (Original) The method according to claim 11, wherein said step of filtering a user  
2        datagram protocol comprises the steps of:

3           receiving an Internet protocol packet from which an Internet protocol header is removed;  
4           separating a user datagram protocol header and data of the packet;  
5           comparing a port number recorded on the user datagram protocol header with a port number  
6        assigned previously by the user;  
7           outputting the data to the Moving Picture Experts Group-N transport stream processing unit,  
8        when the port number recorded on the user datagram protocol header is identical with the port  
9        number assigned previously, as it is determined that the data is received normally; and  
10          performing a discard processing, when the port number recorded on the user datagram  
11        protocol header is not identical with the port number assigned previously, as it is determined that  
12        the data is received abnormally, said discard processing discarding data.

Claims 13-14 (Cancelled)

1           Claim 15. (Currently Amended) The method according to claim [[14]] 12, further comprising  
2        of performing a user datagram protocol filtering procedure before performing said step of outputting  
3        the Internet protocol packet to said Moving Picture Experts Group-N transport stream processing  
4        unit.

1       Claim 16. (Original) An apparatus, comprising:

2           a first unit transmitting signals transmitted from a server providing a digital broadcasting

3           service and an Internet provider server to a subscriber;

4           a second unit separating data received through said first unit into digital broadcasting data

5           and Internet data and outputting both data to corresponding units;

6           a third unit receiving the digital broadcasting data outputted from said second unit separately

7           and processing the data; and

8           a fourth unit receiving the Internet data outputted from said second unit separately and

9           processing the data,

10          with said second unit comparing an Internet protocol address of a received Internet protocol

11          packet with an broadcasting Internet protocol address assigned previously, and processing the

12          Internet protocol packet in a Moving Picture Experts Group-N transport stream processing unit when

13          the Internet protocol packet is determined as the broadcasting Internet protocol address, and

14          outputting the Internet protocol packet to said fourth unit directly when the Internet protocol packet

15          is determined not to be the broadcasting Internet protocol address assigned previously.

Claim 17. (Cancelled)

1        Claim 18. (Original) The apparatus according to claim 16, wherein said second unit

2          comprises:

3           a fifth unit receiving and storing the Internet protocol packet;

4           an sixth unit extracting an Internet protocol header from the Internet protocol packet  
5        outputted from said fifth unit;

6           a seventh unit comparing the Internet protocol header directly from the extraction from said  
7        sixth unit with the Internet protocol address assigned previously;

8           an eighth unit storing the broadcasting Internet protocol address value set by the user;

9           a ninth unit selecting an Internet protocol packet path according to a result value of the  
10      comparison outputted from said seventh unit; and

11          a tenth unit transmitting the Internet protocol packet in order to return the Internet protocol  
12      packet from said Internet protocol packet path processing unit to said fourth unit, when the result  
13      value of the comparison is determined to be the Internet protocol address corresponding to general  
14      Internet data.

1           Claim 19. (Original) The apparatus according to claim 18, wherein said second unit  
2        comprises said Moving Picture Experts Group-N transport stream processing unit for processing the  
3        Internet protocol packet outputted from the Internet protocol packet path processing unit, when the  
4        result value of the comparison of the comparator is determined to be an Internet protocol address  
5        corresponding to a digital broadcasting signal.

1           Claim 20. (Original) The apparatus according to claim 19, wherein said seventh unit includes  
2        an exclusive OR gate.

1       Claim 21. (Original) The apparatus according to claim 20, wherein said second unit further  
2       comprises a user datagram protocol filtering process unit for performing a port number filtering in  
3       order to identify whether data is normally received without any data loss.

1       Claim 22. (Original) The apparatus according to claim 21, wherein said user datagram  
2       protocol filtering process unit comprises a user datagram protocol processing unit for separating  
3       a user datagram protocol header and data part.

1       Claim 23. (Original) The apparatus according to claim 22, wherein said user datagram  
2       protocol filtering process unit further comprises an exclusive OR unit for comparing the user  
3       datagram protocol header with the filtered user datagram protocol header.

1       Claim 24. (Original) The apparatus according to claim 23, wherein said user datagram  
2       protocol filtering process unit further comprises a final processing unit for determining whether to  
3       discard the data or to output the data to said Moving Picture Experts Group-N transport stream  
4       processing unit according to an output value of said exclusive OR unit.

1       Claim 25. (Original) A computer-readable medium having computer-executable instructions  
2       for performing a method, comprising:  
3              receiving an Internet Protocol packet;  
4              copying an Internet protocol header from the received Internet protocol packet and

5 extracting the Internet protocol header;

6 comparing an Internet protocol address of the extracted Internet protocol header with a

7 broadcasting Internet protocol address assigned previously by a user;

8 outputting the Internet protocol packet to a Moving Picture Experts Group-N transport stream

9 processing unit, when the extracted Internet protocol header is identical with the broadcasting

10 Internet protocol address;

11 outputting the Internet protocol packet to a computer, when the extracted Internet protocol

12 header is not identical with a broadcasting Internet protocol address; and

13 establishing at least one broadcasting Internet protocol address to be watched by the user

14 before said step of receiving the Internet Protocol packet by the buffer is performed.

1 Claim 26. (Original) The computer-readable medium having computer-executable

2 instructions for performing a method of claim 25, wherein:

3 said step of outputting the Internet protocol packet to said computer further comprises the

4 step of outputting the Internet protocol packet to the computer through a transmission buffer, when

5 the Internet protocol address of the extracted Internet protocol header is not identical with the

6 broadcasting Internet protocol address;

7 said step of outputting said Internet protocol packet to a Moving Picture Experts Group-N

8 transport stream processing unit further comprises the step of filtering a user datagram protocol; and

9 said step of filtering a user datagram protocol comprises the steps of:

10 receiving an Internet protocol packet from which an Internet protocol header is

11 removed;

12 separating a user datagram protocol header and data of the packet;

13 comparing a port number recorded on the user datagram protocol header with a port

14 number assigned previously by the user;

15 outputting the data to the Moving Picture Experts Group-N transport stream

16 processing unit, when the port number recorded on the user datagram protocol header is identical

17 with the port number assigned previously, as it is determined that the data is received normally; and

18 performing a discard processing, when the port number recorded on the user datagram

19 protocol header is not identical with the port number assigned previously, as it is determined that

20 the data is received abnormally, said discard processing discarding data.

Claim 27. (Cancelled)